

mBot Simulator

(C) Irai, January 2018

1- Compatibility

Windows 7, Windows 8, Windows 10, 32 or 64 bits.

2- Installation

Download www.iraicom/mbs/setup.exe and launch installation.

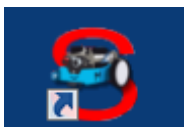
The installation of mBlock software is not required, however, if mBlock is already installed, this is not a problem.

Installing on a network (on a file server) is possible. For deploying on several PCs, simply duplicate the installation directory.

3- License

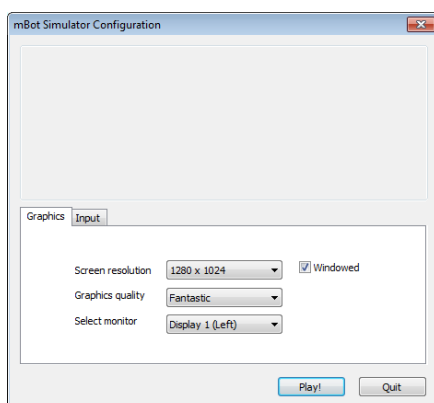
By default, you use a trial license with limitations. If you own a license (a "lic.lic" file), then, copy this file in the installation directory (defaultly "C:\mbs").

4- Launching



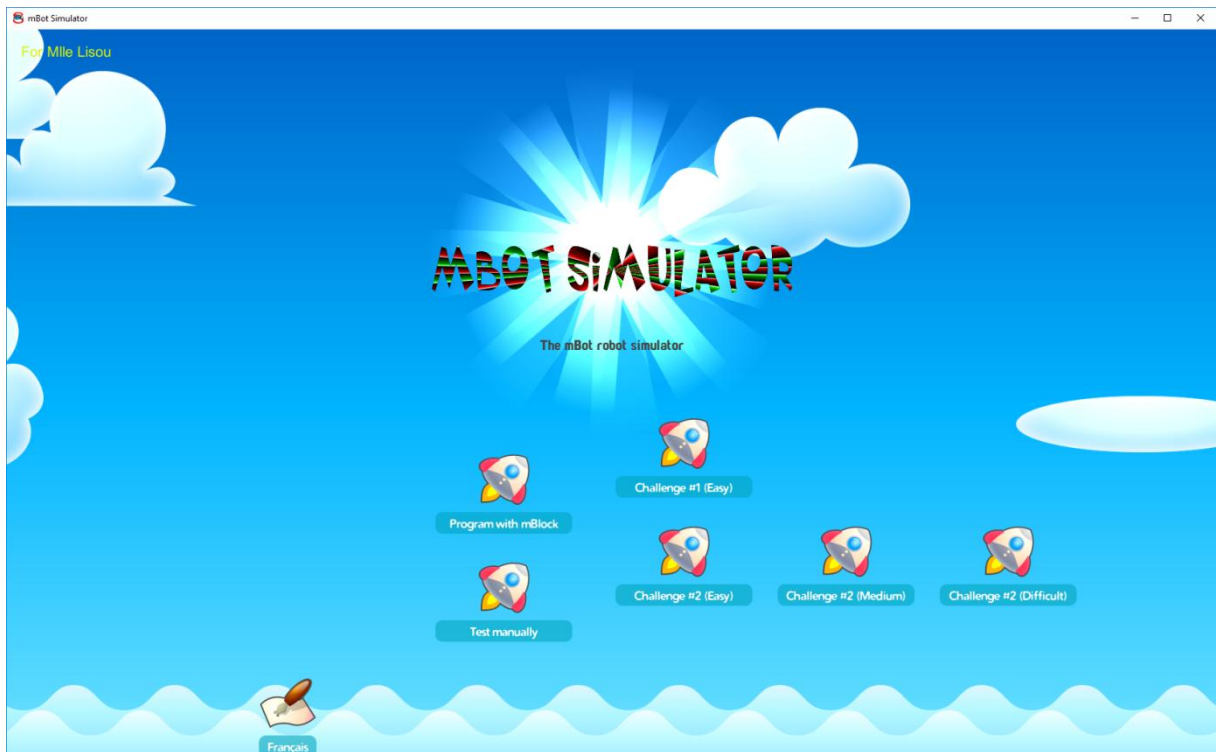
Use the desktop shortcut to launch the "mbs32.exe" file from the installation directory.

A dialog box lets you choose the display quality. Use it to select the best quality according to your PC performances.




Let the "Windowed" checkbox checked, then click on "Play".

5- Usage



If you copied a license file, then the licence informations are displayed at the top left, otherwise, « trial license » will appear.

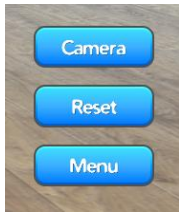
To change the language, click on .

The different modes (buttons ) are as following:

- "Test manually" lets try the robot behaviors,
- "Program with mBlock" lets try the robot with a mBlock program,
- "Challenge..." allows to take a challenge by programing with mBlock.

5.1- Common buttons

Three buttons "Camera", "Reset" and "Menu" are present for all modes:



They allow respectively to modify the point of view, to restart the simulation, and to return to the main menu.

The "wide" point of view:



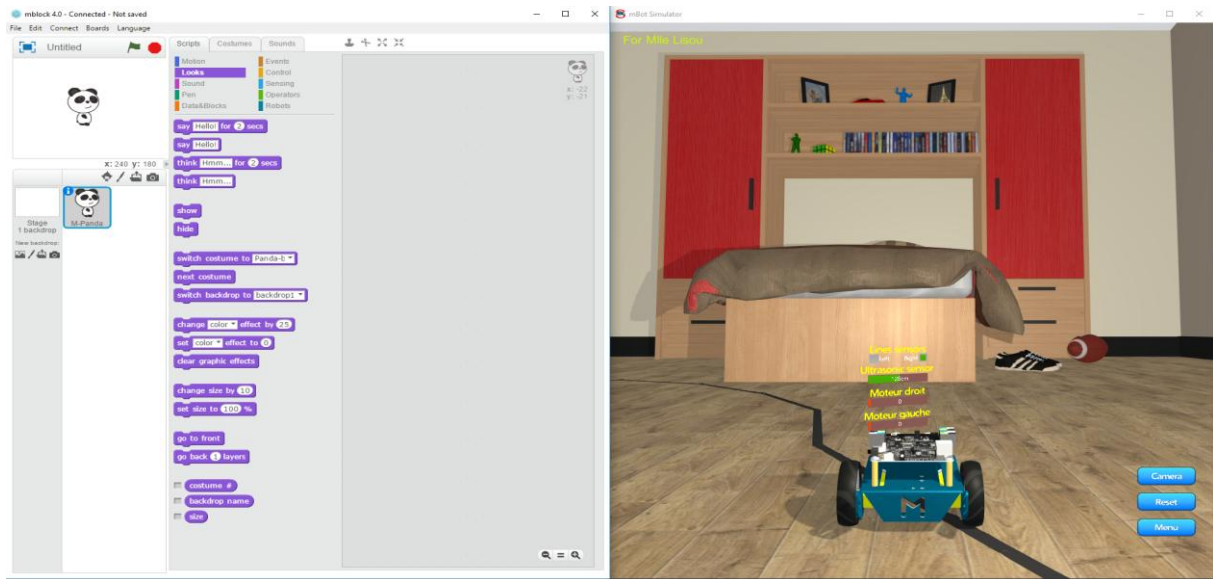
allows navigation in the view with the mouse: right-click and move the mouse to orbit, use the mouse wheel to zoom, let the wheel down with a movement of the mouse to move the camera.

5.2- The "Test manually " mode

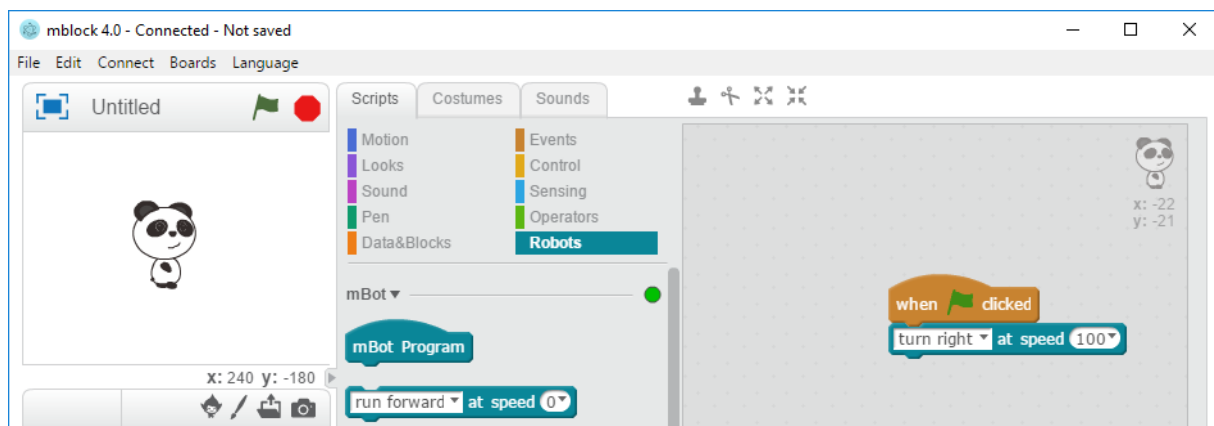
It allows to activate the motors and to observe the state of the sensors. The check box "Same value for both motors" allows to activate them simultaneously or independently (if not checked). It's a good idea to explore the room and the behavior of the sensors with this mode.


5.2- The "Program with mBlock" mode

As soon as you have chosen this mode, the mBlock software is automatically launched. After a moment, mBlock and the simulator are displayed:



You can start creating a program in mBlock as you would for the real robot. For example:



Then click on the green flag. You should see the robot turn in the simulator. The stop button is used to stop the program. You can modify the program at any time, stop it, restart it, and restart the simulation with the  button.

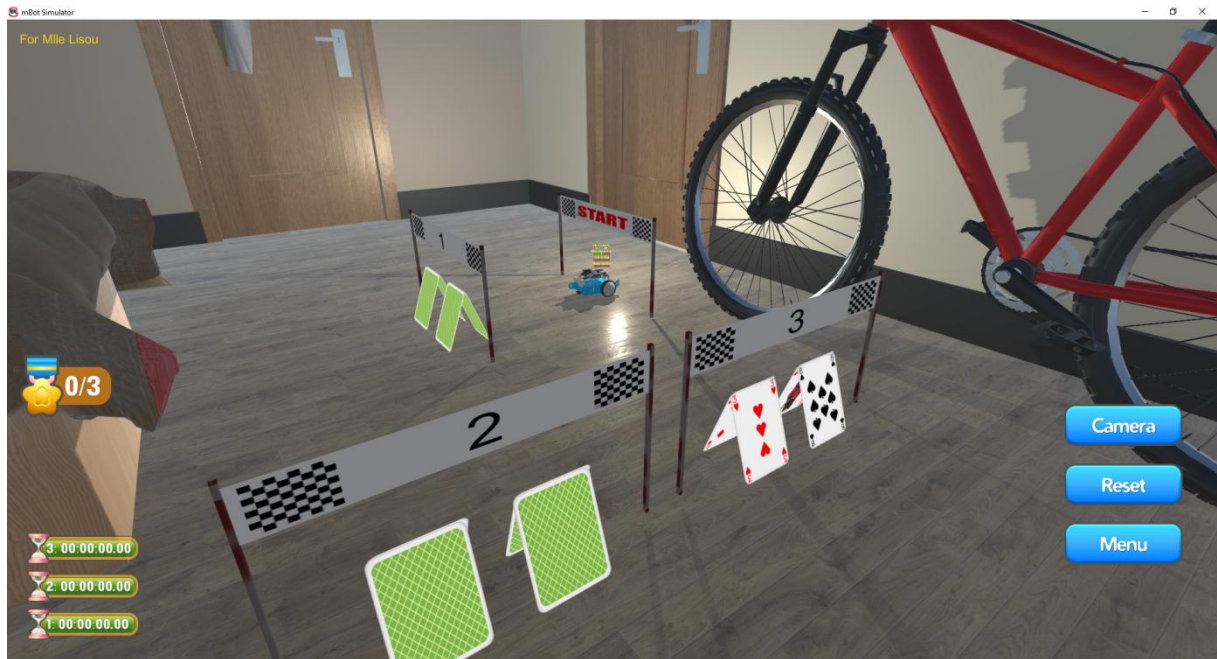
The "File / Open Project" menu allows you to load an existing program. You will find "ready to use" samples in the installation directory of the mBot simulator, Eg. : follow the line.

At first launch, it is possible that your firewall is requesting permission to use a port for mBlock, you can deny this permission without affecting the operation.

5.2- The "Challenge..." modes

These modes work similar to the "Program with mBlock" mode.

This mode is a challenge. Each challenge can offer an activity of its own. For example...



... this challenge is to cross 3 lines 1, 2 and 3 as quickly as possible. At each crossing, the time that was required is displayed. A message will tell you the accomplishment of the challenge.